Type of prevention	NCEP ATP III		2004 NCEP ATP III	
	N	%	N	%
Primary prevention	2393	63.42%	2242	59.42%
Secondary prevention	990	68.85%	473	32.89%

Table showing the number of patients attaining the LDL-C goal recommended by the different guidelines, according to the reason they were prescribed the lipid-lowering therapy.

Conclusions: Although the risk of mortality for patients with CHD is well-known and a number of guidelines exist to reduce this risk, the hypercholesterolemia of patients in the Middle-Eastern countries surveyed is still being undertreated.

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Heart Failure with preserved ejection fraction (HFPEF) and pulmonary hypertension may complicate cases of Sickle Cell Disease in Saudi patients originally from the Eastern Province, Saudi Arabia

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Background and objectives: Sickle cell disease is an important chronic inherited haemoglobin disorder, associated with recurrent vaso-occlusive and haemolytic crises and chronic tissue ischemia which may adversely affect any organ system including the cardiovascular system. Our objectives were to evaluate the cardiac performance in general with concentration on LV diastolic function and pulmonary artery pressure in young adult and adult Saudi patients originally from the Eastern province of Saudi Arabia.

Methods: Forty-five patients with sickle disease were recruited for echocardiographic study while 45 controls, matched for age and sex, served as controls. Left and right ventricular dimensions and wall thicknesses of the LV, LV mass, LV mass index and LV contractility variables were obtained. Left atrial dimension and volume and pulmonary artery systolic pressure were also estimated. We evaluated also parameters of LV diastolic function including early and late atrio-ventricular flow velocities (E and A wave, respectively), E/A ratio, deceleration time (DT), A wave duration (A Dur.), and LV isovolumic relaxation time (IVRT). Other parameters of LV diastolic function including evaluation of Tissue Doppler Velocities, such as lateral annular e′ wave, a′ wave, e′/a′ ratio and E/e′ ratio were evaluated.

Results: There were increases in the LV dimensions, LV volumes, stroke volume, and LV mass indexes of the SCD patients. The preload was increased (LV diastolic volume) and afterload was decreased (low diastolic blood pressure). The LV ejection fraction was equivalent. However, there were evidences of LV diastolic dysfunction in 24%, and PH in 40% of the SCD patients. The mean left atrial volume was also increased in the SCD patients.

Conclusion: Left ventricular diastolic dysfunction (Heart Failure with Preserved Ejection Fraction – HFPEF) and pulmonary hypertension may complicate cases of the Arab-Indian haplotype of sickle cell disease.

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Is diabetes mellitus a coronary artery equivalent? Insights from coronary CT angiography?

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The prevalence of diabetes mellitus (DM) in Saudia Arabia has increased exponentially over the past years. The current guidelines recommend that diabetics should be considered as coronary artery disease (CAD) equivalent.

The aim of this study is to determine the prevalence of CAD and atherosclerosis in asymptomatic diabetic patients.

We prospectively included 102 patients with Type II diabetes mellitus who have no prior history or symptoms of coronary artery disease. All patients underwent coronary CT Angiography (CCTA) which were interpreted on a per segment and vessel basis.

On the coronary CT Angiography, a total of 25, 59 and 18 patients had normal coronaries, non-obstructive and obstructive CAD (defined as >50% luminal stenosis) respectively. Patients with obstructive CAD were older, more often males (89% vs. 42%, $p < 0.001$). There were no major differences in other risk factors and or baseline medications. Most patients had single vessel disease (12/18, 67%), and only 6 patients (33%) had evidence of multivessel CAD. After adjusting for METS, Framingham risk score and abnormal stress test, calcium score (OR 1.005 per 1 point increase in calcium score, 95% CI is 1.003–1.007, $p < 0.0001$) was the only independent predictors of obstructive CAD.

The main findings of this analysis are that nearly 25% of diabetics have normal coronaries and 18% of diabetics have obstructive CAD. The majority of diabetic patients have evidence of atherosclerosis, but not obstructive CAD.

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Prevalence of anemia in a Saudi population with chronic heart failure

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Anemia is a common comorbidity and independent predictor of mortality in patients with chronic heart failure (HF). Prevalence of anemia in HF has varied in Western studies, yet remains unknown in the Middle East.

Objectives: Determine the prevalence of anemia in patients with HF attending the Cardiovascular Disease